FULL SEARCH INITIATED 10:09:24 FILE 'REGISTRY'
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100.0% PROCESSED 351 ITERATIONS 55 ANSWERS
SEARCH TIME: 00.00.01

L3 55 SEA SSS FUL L1

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COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	133.56	133.71

FILE 'CAPLUS' ENTERED AT 10:09:30 ON 07 FEB 2001
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FILE COVERS 1967 - 7 Feb 2001 VOL 134 ISS 7
FILE LAST UPDATED: 6 Feb 2001 (20010206/ED)

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The CA Lexicon is now available in the Controlled Term (/CT) field. Enter HELP LEXICON for full details.

=> s l3 full

L4 43 L3

=> s l4 and hypoxia

25173 HYPOXIA
L5 24 L4 AND HYPOXIA

=> s l5 and PET

35377 PET
L6 3 L5 AND PET

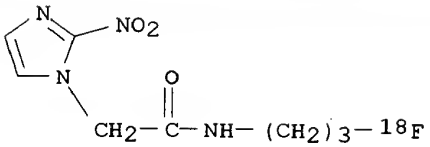
=> d l6 1-3 ibib abs hitstr

L6 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2000:135450 CAPLUS
DOCUMENT NUMBER: 133:55383
TITLE: Noninvasive detection of tumor **hypoxia** using the 2-nitroimidazole [18F]EF1
AUTHOR(S): Evans, Sydney M.; Kachur, Alexander V.; Shiue, Chyng-Yann; Hustinx, Roland; Jenkins, W. Timothy; Shive, Grace G.; Karp, Joel S.; Alavi, Abass; Lord, Edith M.; Dolbier, William R., Jr.; Koch, Cameron J.
CORPORATE SOURCE: Schools of Medicine and Veterinary Medicine, University of Pennsylvania, Philadelphia, PA, USA
SOURCE: J. Nucl. Med. (2000), 41(2), 327-336
CODEN: JNMEAQ; ISSN: 0161-5505
PUBLISHER: Society of Nuclear Medicine, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The noninvasive assessment of tumor **hypoxia** in vivo is under active investigation because **hypoxia** has been shown to be an important prognostic factor for therapy resistance. Various nuclear medicine imaging modalities are being used, including **PET** imaging of 18F-contg. compds. In this study, we report the development of 18F-labeled EF1 for noninvasive imaging of **hypoxia**. EF1 is a 3-monofluoro analog of the well-characterized **hypoxia** marker EF5, 2(2-nitro-1H-imidazol-1-yl)-N-(2,2,3,3,3-pentafluoropropyl)acetamide, which has been used to detect **hypoxia** in tumor and nontumor systems using immunohistochem. methods. We have studied 2 rat tumor types: the hypoxic Morris 7777 (Q7) hepatoma and the oxic 9LF glioma tumor, each grown in s.c. sites. **PET** studies were performed using a pharmacol. dose of nonradioactive carrier in addn. to [18F]EF1 to optimize and assess drug biodistribution. After **PET** imaging of the tumor-bearing rats, tissues were obtained for .gamma.-counting of the 18F in various tissues and immunohistochem. detection of intracellular drug adducts in tumors. In one pair of tumors, Eppendorf needle electrode studies were performed. [18F]EF1 was excreted dominantly through the urinary tract. The tumor-to-muscle (T/M) ratio of [18F]EF1 in the Q7 tumors was 2.7 and 2.4 based on **PET** studies and 2.1, 2.5, and 3.0 based on .gamma.-counting of the tissues (n = 3). In contrast, the T/M ratio of [18F]EF1 in the 9LF glioma tumor was 0.8 and 0.5 based on **PET** studies and 1.0, 1.2, and 1.4 based on .gamma.-counting of the tissues (n = 3). Immunohistochem. anal. of drug adducts for the two tumor types agreed with the radioactivity anal. In the Q7 tumor, substantial heterogeneous binding was obsd. throughout the tumor, whereas in the 9LF tumor minimal binding was found. [18F]EF1 is an excellent radiotracer for noninvasive imaging of tumor **hypoxia**.

IT **252736-29-1**
RL: BPR (Biological process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(detection of tumor **hypoxia** using 2-nitroimidazole [18F]EF1)

RN 252736-29-1 CAPLUS
CN 1H-Imidazole-1-acetamide, N-[3-(fluoro-18F)propyl]-2-nitro- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 40
REFERENCE(S):
(1) Aboagye, E; Anticancer Drug Des 1996, V11, P231 CAPLUS
(3) Ballinger, J; J Nucl Med 1996, V37, P1023 CAPLUS
(4) Bialik, S; J Clin Invest 1997, V100, P1363 CAPLUS
(7) Brown, J; Int J Radiat Oncol Biol Phys 1981, V7, P695 CAPLUS
(9) Cherif, A; J Drug Target 1996, V4, P31 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

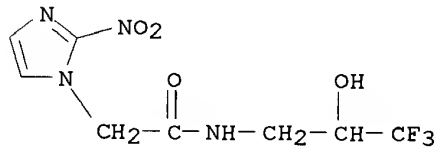
L6 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1998:622782 CAPLUS
DOCUMENT NUMBER: 129:341244
TITLE: Preclinical development and current status of the fluorinated 2-nitroimidazole **hypoxia** probe N-(2-hydroxy-3,3,3-trifluoropropyl)-2-(2-nitro-1-imidazolyl) acetamide (SR 4554, CRC 94/17): a non-invasive diagnostic probe for the measurement of tumor **hypoxia** by magnetic resonance spectroscopy and imaging, and by positron emission tomography
AUTHOR(S): Aboagye, Eric O.; Kelson, Andrew B.; Tracy, Michael; Workman, Paul
CORPORATE SOURCE: Dep. Radiol.-MR Res., The Johns Hopkins University School of Medicine, Baltimore, MD, 21205, USA
SOURCE: Anti-Cancer Drug Des. (1998), 13(6), 703-730
CODEN: ACDDEA; ISSN: 0266-9536
PUBLISHER: Oxford University Press
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English

AB A review with many refs. **Hypoxia** occurs to a variable extent in a vast majority of rodent and human solid tumors. It results from an inadequate and disorganized tumor vasculature, and hence an impaired oxygen delivery. A probe for the non-invasive detection of tumor **hypoxia** could find important utility in the selection of patients for therapy, with bioreductive agents, anti-angiogenic/anti-vascular therapies and **hypoxia**-targeted gene therapy. In addn., tumor **hypoxia** has been shown to predict for treatment outcome following radio- or chemotherapy in human cancers, the underlying mechanism for which may involve **hypoxia** driving genetic instability and resulting tumor progression. Beyond oncol., utility can also be envisaged in stroke, ischemic heart disease, peripheral vascular disease, arthritis and other disorders. Design, validation, preclin. development and current status of a fluorinated 2-nitroimidazole, N-(2-hydroxy-3,3,3-trifluoropropyl)-2-(2-nitro-1-imidazolyl) acetamide (SR 4554, CRC 94/17), which has been rationally designed for the measurement of tumor **hypoxia** by magnetic resonance spectroscopy (MRS) and imaging (MRI), are reviewed. Application in positron emission tomog. (**PET**) detection is also proposed. Design goals were: (i) a nitro group with appropriate redox potential for selective redn. and binding in hypoxic tumor cells; (ii) hydrophilic/hydrogen bonding character in the side chain to limit nervous tissue penetration and prevent neurotoxicity; and (iii) three equiv. fluorine atoms to enhance MRS/MRI detection, located in a metabolically stable position. Redn. of SR 4554 by mouse liver microsomes

was dependent on oxygen content, with a half-maximal inhibition at 0.48 .+-. 0.06%. SR 4554 underwent nitroredn. by hypoxic but not oxic tumor cells in vitro and electron energy loss spectroscopic anal. showed selective retention in the hypoxic regions of multicellular tumor spheroids. Pharmacokinetic design goals were met. In particular, low brain tissue concns. were seen in contrast to excellent tumor levels, as measured by high performance liq. chromatog. The extent of this restricted entry to brain tumor was surprising given the overall octanol/water partition coeff. and was attributed to the hydrophilic/ hydrogen bonding character of the side chain. Quant. MRS was used to assess the retention of 19F signal in murine tumors and human tumor xenografts. The 19F retention index (FRI; ratio of 19F signal levels at 6 h relative to that at 45 min) ranged from 0.5 to 1.0 and 0.2 to 0.9 for murine tumors and human xenografts resp. The correlation between SR 4554 retention and pO2 was not a linear one, but when FRI was >0.5, the % pO2 .ltoreq. 5 mmHg was always >60%, indicating that high FRI was assocd. with low levels of oxygenation. Finally, whole body 19F-MRI in mice demonstrated that SR 4554 and related metabolites localized mainly in tumor, liver and bladder regions. A selective MRS signal was readily detectable in tumors at doses at least 7-fold lower than those likely to cause toxicity in mice. We conclude that proof of principle is established for the use of SR 4554 as a non-invasive MRS/MRI probe for the detection of tumor **hypoxia**. Based on these promising studies, SR 4554 has been selected for clin. development.

IT **167648-73-9P**, SR 4554
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BPR (Biological process); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(preclin. development and current status of the fluorinated 2-nitroimidazole **hypoxia** probe SR 4554, a non-invasive diagnostic probe for the measurement of tumor **hypoxia**)

RN 167648-73-9 CAPLUS
CN 1H-Imidazole-1-acetamide, 2-nitro-N-(3,3,3-trifluoro-2-hydroxypropyl)- (9CI) (CA INDEX NAME)



L6 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER:	1996:494670 CAPLUS
DOCUMENT NUMBER:	125:162343
TITLE:	Detection of **hypoxia** with reagents containing 2-nitroimidazole compounds and methods of making such reagents
INVENTOR(S):	Koch, Cameron J.; Lord, Edith M.
PATENT ASSIGNEE(S):	The Trustees of the Univ. of Pennsylvania, USA; The University of Rochester
SOURCE:	U.S., 29 pp. Cont.-in-part of U.S. Ser. No. 978,918,abandoned. CODEN: USXXAM
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	2
PATENT INFORMATION:	

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5540908	A	19960730	US 1994-286065	19940804
CA 2149770	AA	19940526	CA 1993-2149770	19931118
US 5843404	A	19981201	US 1996-598752	19960208
PRIORITY APPLN. INFO.:			US 1992-978918	19921119
			US 1994-286065	19940804

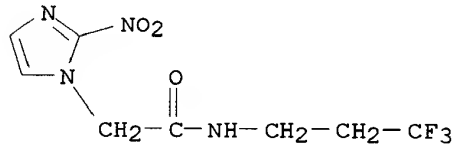
OTHER SOURCE(S): MARPAT 125:162343

AB Novel nitroarom. compds. and immunogenic conjugates comprising a novel nitroarom. compd. and a carrier protein are disclosed. The invention further presents monoclonal antibodies highly specific for the claimed nitroarom. compds., protein conjugates of the compds., reductive byproducts of the compds., and adducts formed between the compds. and mammalian hypoxic cell tissue proteins. The invention is further directed to methods for detecting tissue **hypoxia** using immunohistol. techniques, noninvasive nuclear medicine methods (**PET**, SPECT), or NMR. Diagnostic kits useful in practicing the methods of claimed invention are also provided.

IT **180208-73-5P**
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(**hypoxia** detection with 2-nitroimidazole compds. and immunogenic conjugates)

RN 180208-73-5 CAPLUS

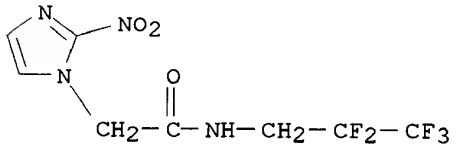
CN 1H-Imidazole-1-acetamide, 2-nitro-N-(3,3,3-trifluoropropyl)- (9CI) (CA INDEX NAME)



IT **152721-37-4P**
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(**hypoxia** detection with 2-nitroimidazole compds. and immunogenic conjugates)

RN 152721-37-4 CAPLUS

CN 1H-Imidazole-1-acetamide, 2-nitro-N-(2,2,3,3,3-pentafluoropropyl)- (9CI) (CA INDEX NAME)



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1368354 PROTEIN?
L7 4 L5 AND PROTEIN?

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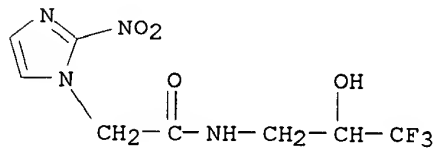
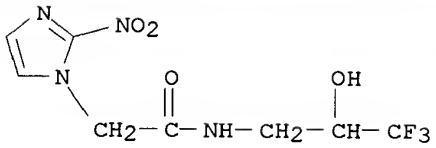
L7 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1997:752599 CAPLUS
DOCUMENT NUMBER: 128:70367
TITLE: Bioreductive metabolism of the novel fluorinated 2-nitroimidazole **hypoxia** probe N-(2-hydroxy-3,3,3-trifluoropropyl)-2-(2-nitroimidazolyl) acetamide (SR-4554)
AUTHOR(S): Aboagye, Eric O.; Lewis, Alexander D.; Tracy, Michael; Workman, Paul
CORPORATE SOURCE: CRC DEPARTMENT OF MEDICAL ONCOLOGY, CLINICAL PHARMACOLOGY AND NEW DRUG DEVELOPMENT TEAM, UNIVERSITY OF GLASGOW, GLASGOW, G61 1BD, UK
SOURCE: Biochem. Pharmacol. (1997), 54(11), 1217-1224
CODEN: BCPCA6; ISSN: 0006-2952
PUBLISHER: Elsevier Science Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The aim of this work was to study the metabolic characteristics of the novel fluorinated 2-nitroimidazole **hypoxia** probe N-(2-hydroxy-3,3,3-trifluoropropyl)-2-(2-nitroimidazolyl) acetamide (SR-4554). HPLC and 19F NMR methods were employed to evaluate the rate of reductive metab. of SR-4554 and the nature of the resulting metabolites, resp. SR-4554 was enzymically reduced by mouse liver microsomes (1.1 .+-. 0.1 nmol of SR-4554 reduced/min/mg **protein**), purified rat and human NADPH: cytochrome P 450 reductase (17.8 .+-. 0.4 and 5.0 .+-. 0.5 nmol of SR-4554 reduced/min/mg **protein**, resp.), and SCCVII tumor homogenates (2.3 .+-. 0.3 nmol of SR-4554 reduced/min/g tumor) under nitrogen. NADPH:cytochrome P 450 reductase was a major microsomal enzyme involved in the bioredn. of SR-4554 by liver microsomes. In a panel of murine and human tumor xenografts, cytochrome P 450 reductase activities were found to be low and only varied by 3-fold between different tumor types, suggesting that enzyme activities within the tumors are unlikely to influence markedly in vivo reductive metab. Redn. of SR-4554 by mouse liver microsomes showed a characteristic oxygen dependence with a half-maximal inhibition of 0.48 .+-. 0.06%. Thus, the reductive metab. of SR-4554 can be employed to detect the low oxygen tensions that occur within both murine and human tumors. Sol., low mol. wt. reductive metabolites of SR-4554 were identified by 19F NMR. These metabolite peaks appeared (up to 0.12 ppm) downfield of the parent drug peak. In conclusion, SR-4554 undergoes an oxygen-dependent metab. that involves NADPH:cytochrome P 450 reductase. 19F NMR is capable of identifying reduced metabolites that are undetectable by HPLC.

IT **167648-73-9**, SR-4554
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(bioreductive metab. of **hypoxia** probe SR-4554)
RN 167648-73-9 CAPLUS
CN 1H-Imidazole-1-acetamide, 2-nitro-N-(3,3,3-trifluoro-2-hydroxypropyl)-(9CI) (CA INDEX NAME)

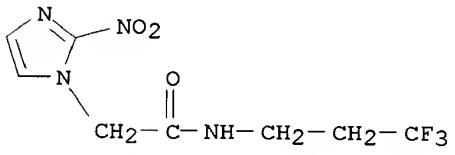




L7 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1996:494670 CAPLUS
DOCUMENT NUMBER: 125:162343
TITLE: Detection of **hypoxia** with reagents containing 2-nitroimidazole compounds and methods of making such reagents
INVENTOR(S): Koch, Cameron J.; Lord, Edith M.
PATENT ASSIGNEE(S): The Trustees of the Univ. of Pennsylvania, USA; The University of Rochester
SOURCE: U.S., 29 pp. Cont.-in-part of U.S. Ser. No. 978,918,abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

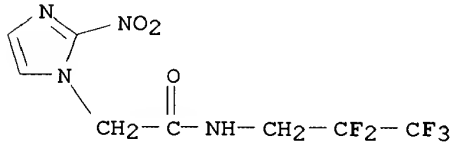
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5540908	A	19960730	US 1994-286065	19940804
CA 2149770	AA	19940526	CA 1993-2149770	19931118
US 5843404	A	19981201	US 1996-598752	19960208
PRIORITY APPLN. INFO.:			US 1992-978918	19921119
			US 1994-286065	19940804

OTHER SOURCE(S): MARPAT 125:162343
AB Novel nitroarom. compds. and immunogenic conjugates comprising a novel nitroarom. compd. and a carrier **protein** are disclosed. The invention further presents monoclonal antibodies highly specific for the claimed nitroarom. compds., **protein** conjugates of the compds., reductive byproducts of the compds., and adducts formed between the compds. and mammalian hypoxic cell tissue **proteins**. The invention is further directed to methods for detecting tissue **hypoxia** using immunohistol. techniques, noninvasive nuclear medicine methods (PET, SPECT), or NMR. Diagnostic kits useful in practicing the methods of claimed invention are also provided.
IT **180208-73-5P**
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(**hypoxia** detection with 2-nitroimidazole compds. and immunogenic conjugates)
RN 180208-73-5 CAPLUS
CN 1H-Imidazole-1-acetamide, 2-nitro-N-(3,3,3-trifluoropropyl)- (9CI) (CA INDEX NAME)



IT **152721-37-4P**
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP

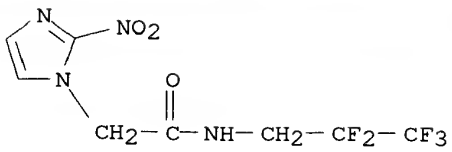
(Preparation); USES (Uses)
(**hypoxia** detection with 2-nitroimidazole compds. and immunogenic conjugates)
RN 152721-37-4 CAPLUS
CN 1H-Imidazole-1-acetamide, 2-nitro-N-(2,2,3,3,3-pentafluoropropyl)- (9CI) (CA INDEX NAME)



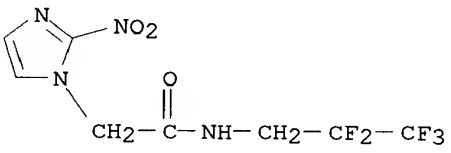
L7 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1994:506516 CAPLUS
DOCUMENT NUMBER: 121:106516
TITLE: Monoclonal antibody to nitroaromatic compound for **hypoxia** detection
INVENTOR(S): Koch, Cameron J.; Lord, Edith M.
PATENT ASSIGNEE(S): University of Pennsylvania, USA; University of Rochester
SOURCE: PCT Int. Appl., 51 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9411348	A1	19940526	WO 1993-US11190	19931118
W: CA, JP, LV, UZ				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2149770	AA	19940526	CA 1993-2149770	19931118
EP 669913	A1	19950906	EP 1994-902291	19931118
R: BE, CH, DE, DK, FR, GB, IT, LI				
JP 08503469	T2	19960416	JP 1993-512489	19931118
PRIORITY APPLN. INFO.:			US 1992-978918	19921119
			WO 1993-US11190	19931118

OTHER SOURCE(S): MARPAT 121:106516
AB Novel nitroarom. compds. and immunogenic conjugates comprising a novel nitroarom. compd. and a carrier **protein** are disclosed. The invention further presents monoclonal antibodies highly specific for the claimed nitroarom. compds., the compds.' **protein** conjugates, the compds.' reductive byproducts, and adducts formed between the compds. and mammalian hypoxic cell tissue **proteins**. The invention is further directed to methods for detecting tissue **hypoxia** using immunohistol. techniques, non-invasive nuclear medicinal methods, or NMR. Diagnostic kits useful in practicing the methods of claimed invention are also provided.
IT **152721-37-4DP**, conjugates with albumin or lysozyme or Bowman-Birk inhibitor
RL: PREP (Preparation)
(prepn. of, as immunogen, for raising monoclonal antibody, for **hypoxia** detn.)
RN 152721-37-4 CAPLUS
CN 1H-Imidazole-1-acetamide, 2-nitro-N-(2,2,3,3,3-pentafluoropropyl)- (9CI) (CA INDEX NAME)

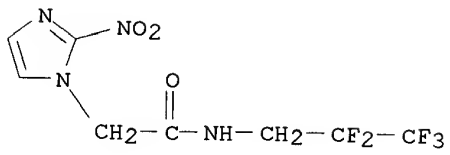


IT **152721-37-4P**
RL: PREP (Preparation)
(prepn. of, for prepg. immunogen for raising monoclonal antibody for **hypoxia** detn.)
RN 152721-37-4 CAPLUS
CN 1H-Imidazole-1-acetamide, 2-nitro-N-(2,2,3,3,3-pentafluoropropyl)- (9CI) (CA INDEX NAME)



L7 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1994:101090 CAPLUS
DOCUMENT NUMBER: 120:101090
TITLE: Detection of hypoxic cells by monoclonal antibody recognizing 2-nitroimidazole adducts
AUTHOR(S): Lord, Edith M.; Harwell, Lee; Koch, Cameron J.
CORPORATE SOURCE: Cancer Cent., Univ. Rochester, Rochester, NY, 14642, USA
SOURCE: Cancer Res. (1993), 53(23), 5721-6
CODEN: CNREA8; ISSN: 0008-5472
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A pentafluorinated deriv. [EF5; 2-(2-nitro-1H-imidazol-1-yl)-N-(2,2,3,3,3-pentafluoropropyl)acetamide] of etanidazole was synthesized with the expectation of lessening some of the non-oxygen-dependent variability in adduct formation obsd. previously with other nitroarom. compds. EF5-**protein** conjugates, prepd. by radiochem. redn., were found to be immunogenic and allowed the development of monoclonal antibodies. One of these antibodies, ELK2-4, has been characterized and found to be highly specific for the EF5 adducts whether produced radiochem. or by cellular bioreductive metab. The 9L rat glioma cells pretreated with EF5 under hypoxic, compared with aerobic, conditions were readily discriminated immunochem. using fluorochrome-conjugated secondary antibodies which recognize the ELK2-4 antibody subtype (IgG1). Similarly, the central region of multicellular spheroids, composed of EMT6 mouse mammary sarcoma cells, was selectively visualized by immunohistochem. after the spheroids were incubated for 4 h in 0.5 mM EF5. Tumor biopsy, prepn., and immunohistochem. staining 24 h after treatment of tumor-bearing animals with drug also demonstrated high contrast regions within EMT6 mouse or Morris 7777 hepatoma rat tumors. The use of this new compd. and its highly specific monoclonal antibody may allow elucidation of bioreductive metab. of the nitroheterocyclics and significantly improve technologies for the quantitation of tissue pO2.
IT **152721-37-4**
RL: ANST (Analytical study)
(in hypoxic cell detection with monoclonal antibodies)
RN 152721-37-4 CAPLUS
CN 1H-Imidazole-1-acetamide, 2-nitro-N-(2,2,3,3,3-pentafluoropropyl)- (9CI)

(CA INDEX NAME)



=> fil uspatful

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	35.62	169.33

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-4.12	-4.12

FILE 'USPATFULL' ENTERED AT 10:12:32 ON 07 FEB 2001
CA INDEXING COPYRIGHT (C) 2001 AMERICAN CHEMICAL SOCIETY (ACS)

FILE COVERS 1971 TO PATENT PUBLICATION DATE: 6 Feb 2001 (20010206/PD)
FILE LAST UPDATED: 6 Feb 2001 (20010206/ED)
HIGHEST PATENT NUMBER: US6185737
CA INDEXING IS CURRENT THROUGH 6 Feb 2001 (20010206/UPCA)
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 6 Feb 2001 (20010206/PD)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Nov 2000
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Sep 2000

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This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l3 full

L8 11 L3

=> d l8 1-11 ibib abs hitstr

L8 ANSWER 1 OF 11 USPATFULL
ACCESSION NUMBER: 1999:166572 USPATFULL
TITLE: Metal chelating compounds having an SNNN donor set
INVENTOR(S): Archer, Colin Mill, Chesham, United Kingdom
Bower, Gary Robert, Aylesbury, United Kingdom

Gill, Harjit Kaur, Chesham, United Kingdom
Riley, Anthony Leonard Mark, Marlow, United Kingdom
Storey, Anthony Eamon, Amersham, United Kingdom
Canning, Lewis Reuben, Chesham, United Kingdom
Griffiths, David Vaughan, Colchester, United Kingdom
PATENT ASSIGNEE(S): Nycomed Amersham plc, United Kingdom (non-U.S. corporation)

	NUMBER	DATE
PATENT INFORMATION:	US 6004531	19991221
APPLICATION INFO.:	US 1997-917476	19970826 (8)

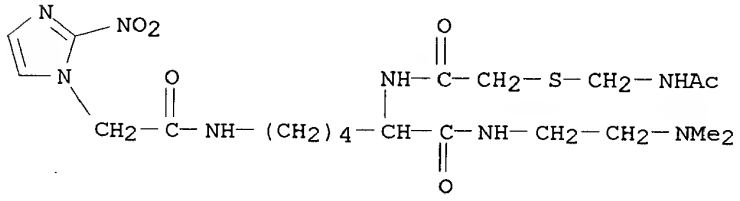
RELATED APPLN. INFO.: Division of Ser. No. US 1997-888398, filed on 7 Jul 1997 which is a continuation of Ser. No. US 356383

	NUMBER	DATE
PRIORITY INFORMATION:	EP 1993-302634	19930402

DOCUMENT TYPE: Utility
PRIMARY EXAMINER: Clardy, S. Mark
ASSISTANT EXAMINER: Hartley, Michael G.
LEGAL REPRESENTATIVE: Wenderoth, Lind & Ponack, L.L.P.
NUMBER OF CLAIMS: 9
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 10 Drawing Figure(s); 10 Drawing Page(s)
LINE COUNT: 1544
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Ligands for radiopharmaceutical use are capable of chelating radiometal species and of being bound to biological targeting molecules. The ligands have formula (a) and (b), where A, A'=--SZ or Y, B.dbd.O or S, Y.dbd. (c), Z.dbd.H or a thiol protecting group, m=2 or 3, n=2 or 3, q=0
or 1, R.dbd.H or unsubstituted or substituted hydrocarbon and pharmaceutically acceptable salts, provided that at least one CR.sub.2 group represents CO and forms, together with an adjacent N atom, a --CONR-- amide group. ##STR1##

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **164213-58-5P**
(prepn. of metal chelating compds.)
RN 164213-58-5 USPATFULL
CN 1H-Imidazole-1-acetamide,
N-[5-[[[[(acetylamino)methyl]thio]acetyl]amino]-6-[[2-(dimethylamino)ethyl]amino]-6-oxohexyl]-2-nitro- (9CI) (CA INDEX NAME)



L8 ANSWER 2 OF 11 USPATFULL
ACCESSION NUMBER: 1999:89283 USPATFULL
TITLE: Thioether-containing metal chelating compounds
INVENTOR(S): Archer, Colin Mill, Chesham, United Kingdom
Bower, Gary Robert, Aylesbury, United Kingdom
Gill, Harjit Kaur, Chesham, United Kingdom
Riley, Anthony Leonard Mark, Marlow, United Kingdom
Storey, Anthony Eamon, Amersham, United Kingdom

PATENT ASSIGNEE(S):	Canning, Lewis Reuben, Chesham, United Kingdom Griffiths, David Vaughan, Colchester, United Kingdom Nycomed Amersham plc, United Kingdom (non-U.S. corporation)

	NUMBER	DATE
PATENT INFORMATION:	US 5932707	19990803
APPLICATION INFO.:	US 1997-888398	19970707 (8)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 356383	
PRIORITY INFORMATION:	EP 1993-302634	19930402

DOCUMENT TYPE:	Utility
PRIMARY EXAMINER:	Dees, Jose G.
ASSISTANT EXAMINER:	Hartley, Michael G.
LEGAL REPRESENTATIVE:	Wenderoth, Lind & Ponack, L.L.P.
NUMBER OF CLAIMS:	12
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	10 Drawing Figure(s); 10 Drawing Page(s)
LINE COUNT:	1559

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Ligands for radiopharmaceutical use are capable of chelating radiometal species and of being bound to biological targeting molecules. The ligands have the formula (a) and (b), where A, A'=--SZ or Y, B=O or S, Y=(c), Z=H or a thiol protecting group, m=2 or 3, n=2 or 3, q=0 or 1, R=H or unsubstituted or substituted hydrocarbon and pharmaceutically acceptable salts, provided that at least one CR.sub.2 group represents CO and forms, together with an adjacent N atom; a --CONR-- amide group. ##STR1##

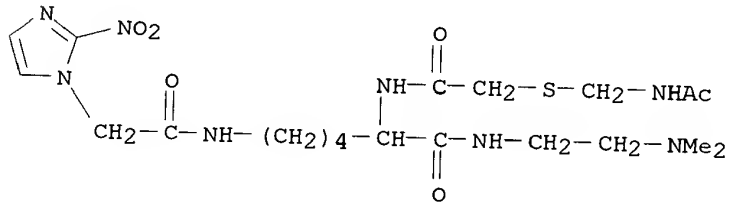
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT **164213-58-5P**

(prepn. of metal chelating compds.)

RN 164213-58-5 USPATFULL

CN 1H-Imidazole-1-acetamide, N-[5-[[[[(acetylamino)methyl]thio]acetyl]amino]-6-[[2-(dimethylamino)ethyl]amino]-6-oxohexyl]-2-nitro- (9CI) (CA INDEX NAME)



L8 ANSWER 3 OF 11 USPATFULL

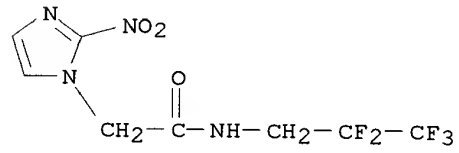
ACCESSION NUMBER:	1998:150428 USPATFULL
TITLE:	Detection of hypoxia
INVENTOR(S):	Koch, Cameron J., Phila., PA, United States Lord, Edith M., Rochester, NY, United States
PATENT ASSIGNEE(S):	Trustees of the University of Pennsylvania, Philadelphia, PA, United States (U.S. corporation) Trustees of the University of Rochester, Rochester, NY, United States (U.S. corporation)

	NUMBER	DATE

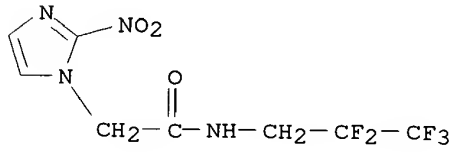
PATENT INFORMATION: US 5843404 19981201
APPLICATION INFO.: US 1996-598752 19960208 (8)
RELATED APPLN. INFO.: Division of Ser. No. US 1994-286065, filed on 4 Aug 1994, now patented, Pat. No. US 5540908 which is a continuation-in-part of Ser. No. US 1992-978918, filed on 19 Nov 1992, now abandoned
DOCUMENT TYPE: Utility
PRIMARY EXAMINER: Achutamurth, Ponnathamurthy
LEGAL REPRESENTATIVE: Woodcock Washburn Kurtz Mackiewicz & Norris LLP
NUMBER OF CLAIMS: 15
EXEMPLARY CLAIM: 1,9
NUMBER OF DRAWINGS: 18 Drawing Figure(s); 15 Drawing Page(s)
LINE COUNT: 1430
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Novel nitroaromatic compounds and immunogenic conjugates comprising a novel nitroaromatic compound and a carrier protein are disclosed. The invention further presents monoclonal antibodies highly specific for the claimed nitroaromatic compounds, the compounds' protein conjugates, the compounds' reductive byproducts, and adducts formed between the compounds and mammalian hypoxic cell tissue proteins. The invention is further directed to methods for detecting tissue hypoxia using immunohistological techniques, non-invasive nuclear medicinal methods, or nuclear magnetic resonance. Diagnostic kits useful in practicing the methods of claimed invention are also provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **152721-37-4DP**, conjugates with albumin or lysozyme or Bowman-Birk inhibitor
(prepn. of, as immunogen, for raising monoclonal antibody, for hypoxia detn.)
RN 152721-37-4 USPATFULL
CN 1H-Imidazole-1-acetamide, 2-nitro-N-(2,2,3,3,3-pentafluoropropyl)- (9CI) (CA INDEX NAME)



IT **152721-37-4P**
(prepn. of, for prepg. immunogen for raising monoclonal antibody for hypoxia detn.)
RN 152721-37-4 USPATFULL
CN 1H-Imidazole-1-acetamide, 2-nitro-N-(2,2,3,3,3-pentafluoropropyl)- (9CI) (CA INDEX NAME)



L8 ANSWER 4 OF 11 USPATFULL
ACCESSION NUMBER: 1998:42477 USPATFULL
TITLE: Methods for preparing heteroatom-bearing ligands and metal complexes thereof

INVENTOR(S):	Ramalingam, Kondareddiar, Dayton, NJ, United States Raju, Natarajan, Kendall Park, NJ, United States
PATENT ASSIGNEE(S):	Bracco International B.V., Amsterdam, United States (non-U.S. corporation)

	NUMBER	DATE
PATENT INFORMATION:	US 5741912	19980421
APPLICATION INFO.:	US 1995-479076	19950606 (8)

RELATED APPLN. INFO.: Division of Ser. No. US 1994-242093, filed on 18 May 1994, now patented, Pat. No. US 5608110 which is a continuation-in-part of Ser. No. US 1993-77981, filed on 15 Jun 1993, now abandoned

DOCUMENT TYPE: Utility
PRIMARY EXAMINER: Hollinden, Gary E.
ASSISTANT EXAMINER: Hartley, Michael G.
LEGAL REPRESENTATIVE: Hoare, George P.; Rhoads, Donald L.
NUMBER OF CLAIMS: 6
EXEMPLARY CLAIM: 1
LINE COUNT: 3388

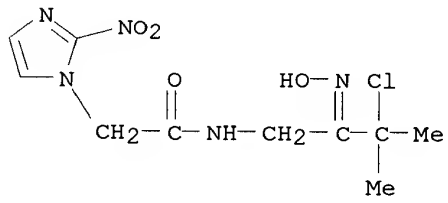
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Novel compounds containing a heteroatom-bearing bridge and novel complexes of these compounds with metals. The novel compounds and complexes are useful in diagnostic and therapeutic methods.

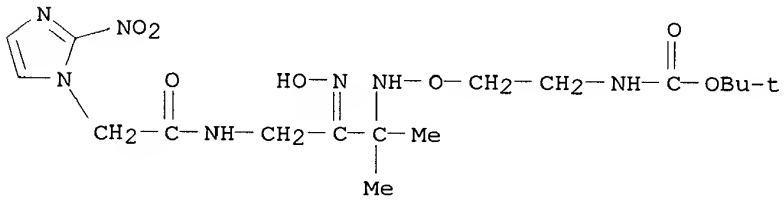
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT **161490-39-7P 161490-40-0P 161490-41-1P**
(for prepn. of technetium triaza or oxadiaza dioxime complexes)

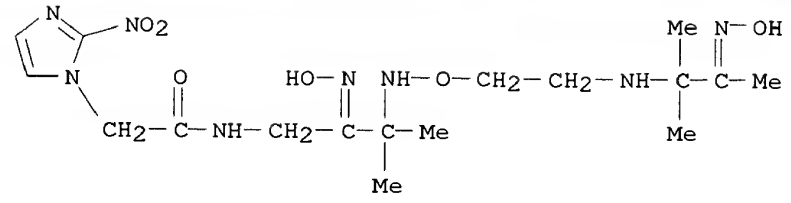
RN 161490-39-7 USPATFULL
CN 1H-Imidazole-1-acetamide, N-[3-chloro-2-(hydroxyimino)-3-methylbutyl]-2-nitro- (9CI) (CA INDEX NAME)



RN 161490-40-0 USPATFULL
CN 5-Oxa-2,6,10-triazadodecanoic acid, 8-(hydroxyimino)-7,7-dimethyl-12-(2-nitro-1H-imidazol-1-yl)-11-oxo-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 161490-41-1 USPATFULL
CN 1H-Imidazole-1-acetamide,
N-[2-(hydroxyimino)-3-[[2-[[2-(hydroxyimino)-1,1-dimethylpropyl]amino]ethoxy]amino]-3-methylbutyl]-2-nitro- (9CI) (CA INDEX NAME)



L8 ANSWER 5 OF 11 USPATFULL

ACCESSION NUMBER:	1998:19731 USPATFULL
TITLE:	Fluorinated 2-nitroimidazole analogs for detecting hypoxic tumor cells
INVENTOR(S):	Tracy, Michael, Palo Alto, CA, United States Kelson, Andrew B., San Carlos, CA, United States Workman, Paul, Wilmslow, England Lewis, Alexander D., Bearsden, Scotland Aboagye, Eric O., Bearsden, Scotland
PATENT ASSIGNEE(S):	SRI International, Menlo Park, CA, United States (U.S. corporation)

	NUMBER	DATE
PATENT INFORMATION:	US 5721265	19980224
APPLICATION INFO.:	US 1995-458178	19950602 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1994-286477, filed on 5 Aug 1994, now abandoned	
DOCUMENT TYPE:	Utility	
PRIMARY EXAMINER:	Higel, Floyd D.	
LEGAL REPRESENTATIVE:	Reed, Dianne E.Bozicevic & Reed LLP	
NUMBER OF CLAIMS:	47	
EXEMPLARY CLAIM:	1,38	
NUMBER OF DRAWINGS:	10 Drawing Figure(s); 8 Drawing Page(s)	
LINE COUNT:	1317	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

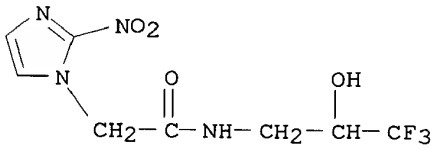
AB Agents useful for detecting hypoxic tumor cells are provided. The compounds have the structural formula (I) ##STR1## Methods of using the compounds to detect hypoxic tumor cells are also provided, as are pharmaceutical compositions formulated with the novel compounds.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT **167648-73-9P 177595-17-4P 177595-20-9P**
177595-21-0P 177595-22-1P 203452-63-5P
(prepn. of fluorinated nitroimidazole analogs for detecting hypoxic tumor cells)

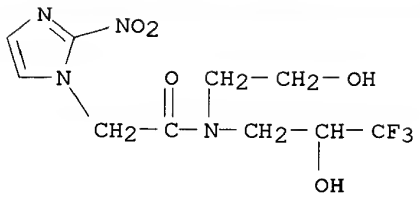
RN 167648-73-9 USPATFULL

CN 1H-Imidazole-1-acetamide, 2-nitro-N-(3,3,3-trifluoro-2-hydroxypropyl)- (9CI) (CA INDEX NAME)

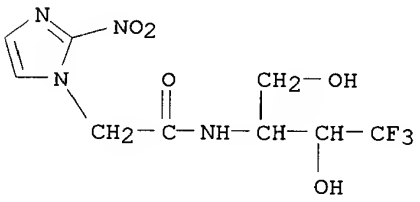


RN 177595-17-4 USPATFULL

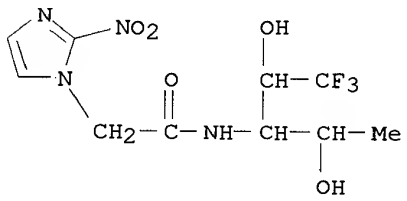
CN 1H-Imidazole-1-acetamide, N-(2-hydroxyethyl)-2-nitro-N-(3,3,3-trifluoro-2-hydroxypropyl)- (9CI) (CA INDEX NAME)



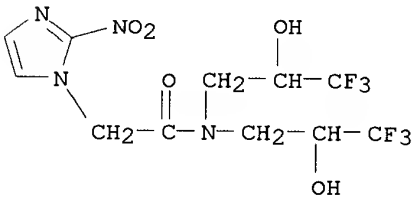
RN 177595-20-9 USPATFULL
CN 1H-Imidazole-1-acetamide, 2-nitro-N-[3,3,3-trifluoro-2-hydroxy-1-(hydroxymethyl)propyl]- (9CI) (CA INDEX NAME)



RN 177595-21-0 USPATFULL
CN 1H-Imidazole-1-acetamide, 2-nitro-N-[3,3,3-trifluoro-2-hydroxy-1-(1-hydroxyethyl)propyl]- (9CI) (CA INDEX NAME)

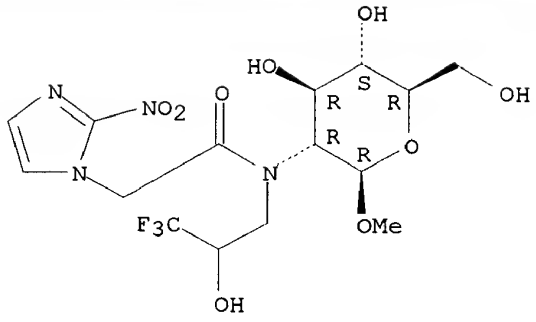


RN 177595-22-1 USPATFULL
CN 1H-Imidazole-1-acetamide,
2-nitro-N,N-bis(3,3,3-trifluoro-2-hydroxypropyl)-
(9CI) (CA INDEX NAME)



RN 203452-63-5 USPATFULL
CN .beta.-D-Glucopyranoside, methyl 2-deoxy-2-[[(2-nitro-1H-imidazol-1-yl)acetyl](3,3,3-trifluoro-2-hydroxypropyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 6 OF 11 USPATFULL

ACCESSION NUMBER:	97:80883 USPATFULL
TITLE:	Heteroatom-bearing ligands and metal complexes thereof
INVENTOR(S):	Ramalingam, Kondareddiar, Dayton, NJ, United States Raju, Natarajan, Kendall Park, NJ, United States
PATENT ASSIGNEE(S):	Bracco International B.V., Amsterdam, United States (non-U.S. corporation)

	NUMBER	DATE
PATENT INFORMATION:	US 5665329	19970909
APPLICATION INFO.:	US 1995-480048	19950606 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1994-242093, filed on 18 May 1994 which is a continuation-in-part of Ser. No. US 1993-77981, filed on 15 Jun 1993, now abandoned	
DOCUMENT TYPE:	Utility	
PRIMARY EXAMINER:	Hollinden, Gary E.	
ASSISTANT EXAMINER:	Hartley, Michael G.	
LEGAL REPRESENTATIVE:	Hoare, George P.; Rhoads, Donald L.	
NUMBER OF CLAIMS:	7	
EXEMPLARY CLAIM:	1	
LINE COUNT:	3429	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

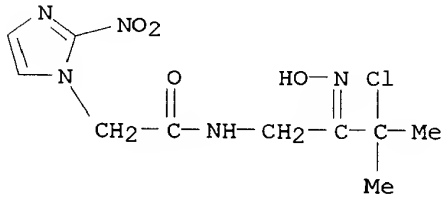
AB Novel compounds containing a heteroatom-bearing bridge and novel complexes of these compounds with metals. The novel compounds and complexes are useful in diagnostic and therapeutic methods.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT **161490-39-7P 161490-40-0P 161490-41-1P**
(for prepn. of technetium triaza or oxadiaza dioxime complexes)

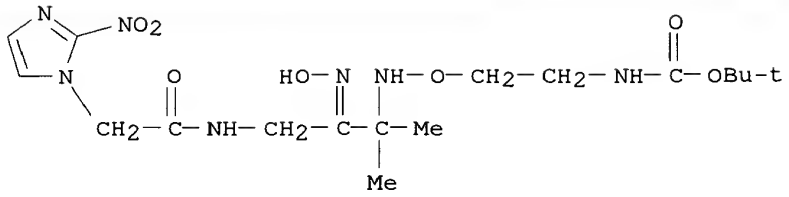
RN 161490-39-7 USPATFULL

CN 1H-Imidazole-1-acetamide, N-[3-chloro-2-(hydroxyimino)-3-methylbutyl]-2-nitro- (9CI) (CA INDEX NAME)

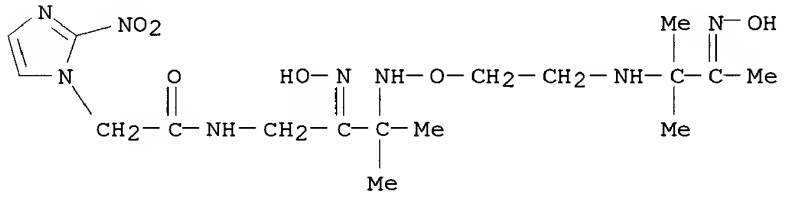


RN 161490-40-0 USPATFULL

CN 5-Oxa-2,6,10-triazadodecanoic acid, 8-(hydroxyimino)-7,7-dimethyl-12-(2-nitro-1H-imidazol-1-yl)-11-oxo-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 161490-41-1 USPATFULL
CN 1H-Imidazole-1-acetamide,
N-[2-(hydroxyimino)-3-[[2-[[2-(hydroxyimino)-1,1-dimethylpropyl]amino]ethoxy]amino]-3-methylbutyl]-2-nitro- (9CI) (CA INDEX NAME)



L8 ANSWER 7 OF 11 USPATFULL

ACCESSION NUMBER:	97:70702 USPATFULL
TITLE:	Polyaza heteroatom-bearing ligands and metal complexes thereof for imaging or radiotherapy
INVENTOR(S):	Ramalingam, Kondareddiar, Dayton, NJ, United States Raju, Natarajan, Kendall Park, NJ, United States
PATENT ASSIGNEE(S):	Bracco International B.V., Amsterdam, United States (non-U.S. corporation)

	NUMBER	DATE
PATENT INFORMATION:	US 5656254	19970812
APPLICATION INFO.:	US 1995-471590	19950606 (8)

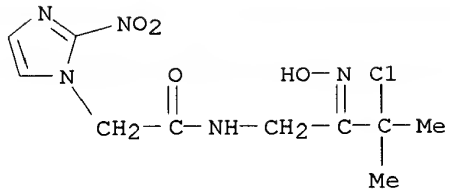
RELATED APPLN. INFO.: Division of Ser. No. US 1994-242093, filed on 18 May 1994 which is a continuation-in-part of Ser. No. US 1993-77981, filed on 15 Jun 1993, now abandoned

DOCUMENT TYPE:	Utility
PRIMARY EXAMINER:	Hollinden, Gary E.
ASSISTANT EXAMINER:	Hartley, Michael G.
LEGAL REPRESENTATIVE:	Hoare, George P.; Rhoads, Donald L.
NUMBER OF CLAIMS:	16
EXEMPLARY CLAIM:	1
LINE COUNT:	3551

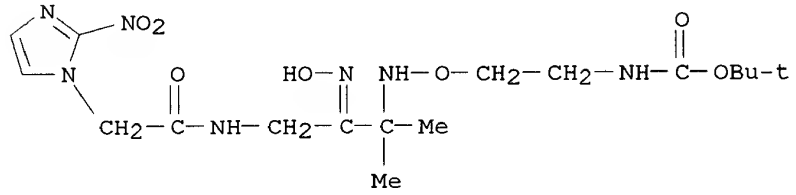
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Novel compounds containing a heteroatom-bearing bridge and novel complexes of these compounds with metals. The novel compounds and complexes are useful in diagnostic and therapeutic methods.

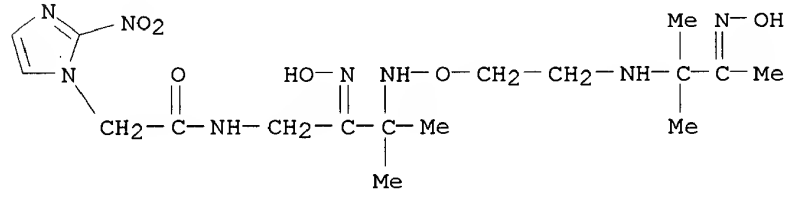
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **161490-39-7P 161490-40-0P 161490-41-1P**
(for prepn. of technetium triaza or oxadiaza dioxime complexes)
RN 161490-39-7 USPATFULL
CN 1H-Imidazole-1-acetamide, N-[3-chloro-2-(hydroxyimino)-3-methylbutyl]-2-nitro- (9CI) (CA INDEX NAME)



RN 161490-40-0 USPATFULL
CN 5-Oxa-2,6,10-triazadodecanoic acid, 8-(hydroxyimino)-7,7-dimethyl-12-(2-nitro-1H-imidazol-1-yl)-11-oxo-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 161490-41-1 USPATFULL
CN 1H-Imidazole-1-acetamide,
N-[2-(hydroxyimino)-3-[[2-[[2-(hydroxyimino)-1,1-dimethylpropyl]amino]ethoxy]amino]-3-methylbutyl]-2-nitro- (9CI) (CA INDEX NAME)



L8 ANSWER 8 OF 11 USPATFULL

ACCESSION NUMBER:	97:38628 USPATFULL
TITLE:	Heteroatom-bearing ligands and metal complexes thereof
INVENTOR(S):	Ramalingam, Kondareddiar, Dayton, NJ, United States Raju, Natarajan, Kendall Park, NJ, United States
PATENT ASSIGNEE(S):	Bracco International B.V., Amsterdam, United States (non-U.S. corporation)

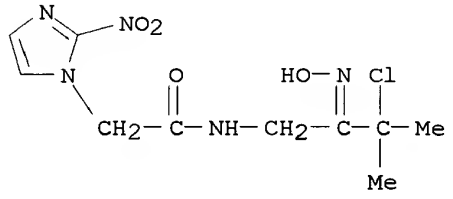
	NUMBER	DATE
PATENT INFORMATION:	US 5627286	19970506
APPLICATION INFO.:	US 1995-472058	19950606 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1994-242093, filed on 18 May 1994 which is a continuation-in-part of Ser. No. US 1993-77981, filed on 15 Jun 1993, now abandoned	
DOCUMENT TYPE:	Utility	
PRIMARY EXAMINER:	Hollinden, Gary E.	
ASSISTANT EXAMINER:	Hartley, Michael G.	
LEGAL REPRESENTATIVE:	Hoare, George P.; Rhoads, Donald L.	
NUMBER OF CLAIMS:	12	
EXEMPLARY CLAIM:	1	
LINE COUNT:	3404	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

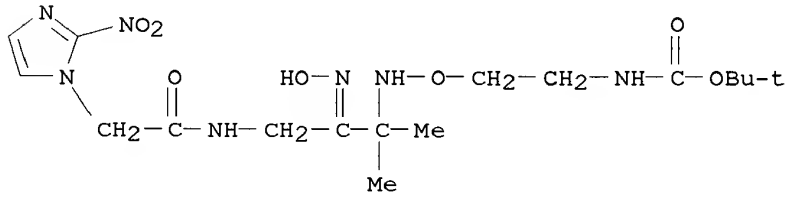
AB Novel compounds containing a heteroatom-bearing bridge and novel

complexes of these compounds with metals. The novel compounds and complexes are useful in diagnostic and therapeutic methods.

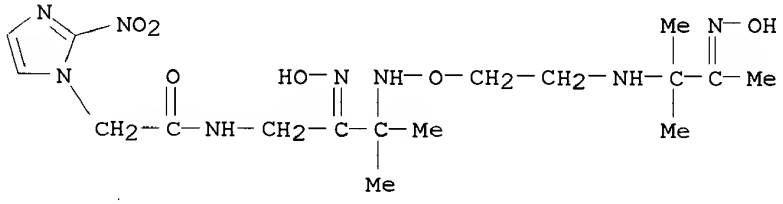
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **161490-39-7P 161490-40-0P 161490-41-1P**
(for prepn. of technetium triaza or oxadiaza dioxime complexes)
RN 161490-39-7 USPATFULL
CN 1H-Imidazole-1-acetamide, N-[3-chloro-2-(hydroxyimino)-3-methylbutyl]-2-nitro- (9CI) (CA INDEX NAME)



RN 161490-40-0 USPATFULL
CN 5-Oxa-2,6,10-triazadodecanoic acid, 8-(hydroxyimino)-7,7-dimethyl-12-(2-nitro-1H-imidazol-1-yl)-11-oxo-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 161490-41-1 USPATFULL
CN 1H-Imidazole-1-acetamide,
N-[2-(hydroxyimino)-3-[[2-[[2-(hydroxyimino)-1,1-dimethylpropyl]amino]ethoxy]amino]-3-methylbutyl]-2-nitro- (9CI) (CA INDEX NAME)



L8 ANSWER 9 OF 11 USPATFULL

ACCESSION NUMBER:	97:18334 USPATFULL
TITLE:	Heteroatom-bearing ligands and metal complexes thereof
INVENTOR(S):	Ramalingam, Kondareddiar, Dayton, NJ, United States Raju, Natarajan, Kendall Park, NJ, United States
PATENT ASSIGNEE(S):	Bracco International B.V., Amsterdam, United States (non-U.S. corporation)

	NUMBER	DATE
PATENT INFORMATION:	US 5608110	19970304
APPLICATION INFO.:	US 1994-242093	19940518 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1993-77981, filed	

on 15 Jun 1993, now abandoned

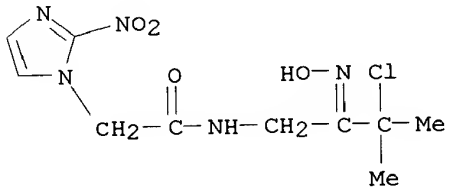
DOCUMENT TYPE: Utility
PRIMARY EXAMINER: Hollinden, Gary E.
ASSISTANT EXAMINER: Hartley, Michael G.
LEGAL REPRESENTATIVE: Hoare, George P.; Rhoads, Donald L.
NUMBER OF CLAIMS: 6
EXEMPLARY CLAIM: 1
LINE COUNT: 3349
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Novel compounds containing a heteroatom-bearing bridge and novel complexes of these compounds with metals. The novel compounds and complexes are useful in diagnostic and therapeutic methods.

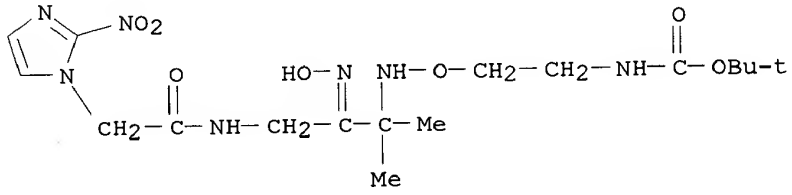
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT **161490-39-7P 161490-40-0P 161490-41-1P 187847-72-9P**
(prepn. of heteroatom-bearing bridged amine oxime ligands, analogs, and their metal complexes for use in diagnostic or therapeutic methods)

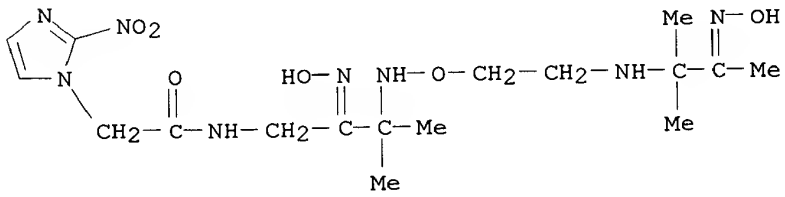
RN 161490-39-7 USPATFULL
CN 1H-Imidazole-1-acetamide, N-[3-chloro-2-(hydroxyimino)-3-methylbutyl]-2-nitro- (9CI) (CA INDEX NAME)



RN 161490-40-0 USPATFULL
CN 5-Oxa-2,6,10-triazadodecanoic acid, 8-(hydroxyimino)-7,7-dimethyl-12-(2-nitro-1H-imidazol-1-yl)-11-oxo-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

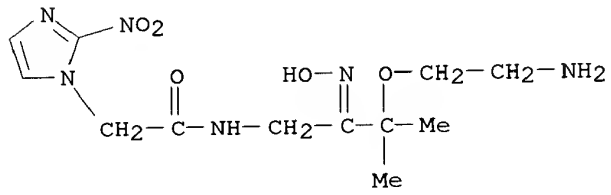


RN 161490-41-1 USPATFULL
CN 1H-Imidazole-1-acetamide, N-[2-(hydroxyimino)-3-[[2-[[2-(hydroxyimino)-1,1-dimethylpropyl]amino]ethoxy]amino]-3-methylbutyl]-2-nitro- (9CI) (CA INDEX NAME)



RN 187847-72-9 USPATFULL

CN 1H-Imidazole-1-acetamide, N-[3-(2-aminoethoxy)-2-(hydroxyimino)-3-methylbutyl]-2-nitro- (9CI) (CA INDEX NAME)



L8 ANSWER 10 OF 11 USPATFULL

ACCESSION NUMBER:	96:67732 USPATFULL
TITLE:	Detection of hypoxia with reagents containing 2-nitroimidazole compounds and methods of making such reagents
INVENTOR(S):	Koch, Cameron J., Philadelphia, PA, United States Lord, Edith M., Rochester, NY, United States
PATENT ASSIGNEE(S):	The Trustees of the Univ. of Pennsylvania, Philadelphia, PA, United States (U.S. corporation) The University of Rochester, Rochester, NY, United States (U.S. corporation)

	NUMBER	DATE
PATENT INFORMATION:	US 5540908	19960730
APPLICATION INFO.:	US 1994-286065	19940804 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1992-978918, filed on 19 Nov 1992, now abandoned	
DOCUMENT TYPE:	Utility	
PRIMARY EXAMINER:	Kim, Kay K. A.	
LEGAL REPRESENTATIVE:	Woodcock Washburn Kurtz Mackiewicz & Norris	
NUMBER OF CLAIMS:	31	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	18 Drawing Figure(s); 15 Drawing Page(s)	
LINE COUNT:	1458	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

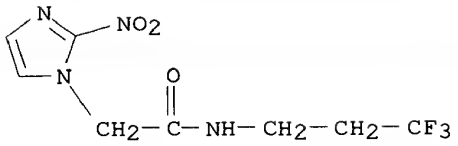
AB Novel nitroaromatic compounds and immunogenic conjugates comprising a novel nitroaromatic compound and a carrier protein are disclosed. The invention further presents monoclonal antibodies highly specific for the claimed nitroaromatic compounds, the compounds' protein conjugates, the compounds' reductive byproducts, and adducts formed between the compounds and mammalian hypoxic cell tissue proteins. The invention is further directed to methods for detecting tissue hypoxia using immunohistological techniques, non-invasive nuclear medicinal methods, or nuclear magnetic resonance. Diagnostic kits useful in practicing the methods of claimed invention are also provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

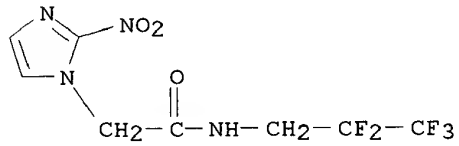
IT **180208-73-5P**
(hypoxia detection with 2-nitroimidazole compds. and immunogenic conjugates)

RN 180208-73-5 USPATFULL

CN 1H-Imidazole-1-acetamide, 2-nitro-N-(3,3,3-trifluoropropyl)- (9CI) (CA INDEX NAME)



IT **152721-37-4P**
(hypoxia detection with 2-nitroimidazole compds. and immunogenic conjugates)
RN 152721-37-4 USPATFULL
CN 1H-Imidazole-1-acetamide, 2-nitro-N-(2,2,3,3,3-pentafluoropropyl)- (9CI) (CA INDEX NAME)



L8 ANSWER 11 OF 11 USPATFULL

ACCESSION NUMBER:	90:95206 USPATFULL
TITLE:	Fluorine-containing 2-nitroimidazole derivatives
INVENTOR(S):	Kagiya, Tsutomu, Kyoto, Japan Abe, Mitsuyuki, Kyoto, Japan Nishimoto, Seiichi, Nara, Japan Shibamoto, Yuta, Kyoto, Japan Otomo, Susumu, Kounosu, Japan Tanami, Tohru, Tokyo, Japan Shimokawa, Kazuhiro, Settsu, Japan Yoshizawa, Toru, Osaka, Japan Hisanaga, Yorisato, Ibaraki, Japan
PATENT ASSIGNEE(S):	Kyoto University of Honmachi, Kyoto, Japan (non-U.S. corporation) Taisho Pharmaceutical Co., Ltd., Tokyo, Japan (non-U.S. corporation) Daikin Industries, Ltd., Osaka, Japan (non-U.S. corporation)

	NUMBER	DATE	
PATENT INFORMATION:	US 4977273	19901211	
APPLICATION INFO.:	US 1989-448909	19891212	(7)
PRIORITY INFORMATION:	JP 1988-315974	19881214	

DOCUMENT TYPE:	Utility
PRIMARY EXAMINER:	Ford, John M.
ASSISTANT EXAMINER:	Whittenbaugh, Robert C.
LEGAL REPRESENTATIVE:	Birch, Stewart, Kolasch & Birch
NUMBER OF CLAIMS:	1
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	1 Drawing Figure(s); 1 Drawing Page(s)
LINE COUNT:	609

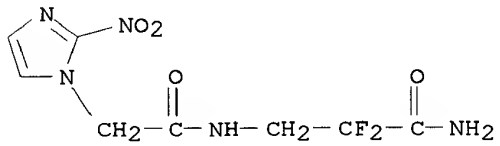
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A 2-nitroimidazole derivative of the formula: ##STR1## wherein R.sub.f is a group of the following formula (II) or (III):

--CH.sub.2 CFXCH.sub.2 OR.sub.1 (II)

wherein X is a hydrogen atom or a halogen atom; R.sub.1 is a group of the formula: ##STR2## wherein R.sub.2 is a hydrogen atom, a hydroxyl group, a C.sub.1 -C.sub.3 alkyl group, a C.sub.2 -C.sub.4 acyl group, benzylidene or acetonide; R.sub.3 is a hydrogen atom or a C.sub.1 -C.sub.3 alkyl group; Z is a hydrogen atom, COOY, COOR.sub.3, CONHOY, CONR.sub.4 R.sub.5 (wherein R.sub.4 and R.sub.5 are hydroxyl group-containing C.sub.1 -C.sub.3 alkyl groups or hydrogen atoms; Y is a hydrogen atom or a monovalent metal atom), an amino group, a hydroxyl group or OR.sub.3 ; l is an integer of 1 to 3; o is an integer of 0 to 3; p is an integer of 0 to 2; q is an integer of 0 to 3; m and n are integers of 0 to 4; and 1.ltoreq.m+n.ltoreq.4 or ##STR3## wherein R.sub.3, X and p are the same as defined above; Z' is the same as Z or is OCOOCH.sub.3 ; r is an integer of 1 to 3; s is 0 or 1; t is an integer of 0 to 4 provided that when p=0, s.noteq.0 and at least one X is a fluorine atom; and a radiosensitizer comprising said nitroimidazole derivative.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **130777-35-4P**
(prepn. of, as radiosensitizer)
RN 130777-35-4 USPATFULL
CN 1H-Imidazole-1-acetamide, N-(3-amino-2,2-difluoro-3-oxopropyl)-2-nitro- (9CI) (CA INDEX NAME)



=>

=> save hypoxia/l

ENTER L#, L# RANGE, ALL, OR (END):all

L# LIST L1-L8 HAS BEEN SAVED AS 'HYPOXIA/L'

=>

---Logging off of STN---

=>
Executing the logoff script...

=> LOG Y

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	55.22	224.55

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION

CA SUBSCRIBER PRICE 0.00 -4.12

STN INTERNATIONAL LOGOFF AT 10:13:46 ON 07 FEB 2001